

Claims

1. A scheduling method of scheduling data packets in time-shared channels, said method comprising the steps of:
 - 5 a) determining a scheduling priority (P_n) for a user based on a ratio between a transmission parameter offered to said user and an average preceding value of said transmission parameter provided to said user within a predetermined time period; and
 - 10 b) changing said determined scheduling priority in dependence on a difference between said average preceding value and a minimum average value allocated to said user.
2. A method according to claim 1, wherein said changing step comprises the step of using a mapping function for mapping said average preceding value to a reduced value based on said difference between said average preceding value and said allocated minimum average value.
- 15 3. A method according to claim 2, wherein said mapping function is adapted to provide said reduced value if said average preceding value falls below a predetermined value higher than said allocated minimum average value.
4. A method according to claim 2 or 3, wherein said mapping function is configured to set said reduced value to zero if said average preceding value is less
20 or equal said allocated minimum average value.
5. A method according to claim 3 or 4, wherein said mapping function is a piecewise linear function.
6. A method according to claim 5, wherein said piecewise linear function provides a one-to-one mapping if said average value is greater or equal said
25 predetermined value, and a linear decreasing mapping if said average value is less than said predetermined value but greater or equal said allocated minimum average value.

7. A method according to any one of the preceding claims, wherein users for which the same scheduling priority has been determined in said determination step are served in a random order.
8. A method according to any one of the preceding claims, wherein said scheduling method is used for DSCH packet scheduling in a radio access network.
9. A method according to any one of claims 1 to 7, wherein said scheduling method is used for HSDPA packet scheduling in a MAC-hs unit (10) of a Node B device.
10. A method according to any one of the preceding claims, wherein said transmission parameter is a throughput of a channel allocated to said user.
11. A scheduling apparatus for scheduling data packets in time-shared channels, said apparatus (104) comprising:
 - a) priority determination means (1044) for determining a scheduling priority (P_n) for a user based on a ratio between a transmission parameter offered to said user and an average preceding value of said transmission parameter provided to said user within a predetermined time period; and
 - b) priority change means (1048) for changing said determined scheduling priority in dependence on a difference between said average preceding value and a minimum average value allocated to said user.
12. An apparatus according to claim 11, wherein said priority change means comprises mapping means (1048) for mapping said average preceding value to a reduced value based on said difference between said average preceding value and said allocated minimum average value.
13. An apparatus according to claim 11 or 12, further comprising disabling means (1049) for disabling said priority change means (1048).
14. An apparatus according to claim 13, wherein said disabling means comprises a switching means (1049) for bypassing said priority change means (1048).

15. An apparatus according to any one of claims 11 to 14, wherein said scheduling apparatus (1004) is provided in a MAC-hs unit (10) of a Node B device.